NEWSLETTER

Issued by
THE MARYLAND VEGETABLE GROWERS' ASSOCIATION

Francis C. Stark, Jr., Secretary - Treasurer

College Park, Maryland

Vol. XXIII. No. 1
February, 1946

The proceedings of the January meetings of the Association should be available to all members within the next two months. Those who were unable to attend the sessions will find some interesting papers in the proceedings dealing with the labor problem, fertilization and the program of the Fruit and Vegetable Department of the National Farm Bureau Federation. Sorry to have missed you if you couldn't be there.

Officers of the Association elected for the ensuing year are: A. Lee Towson, president; Edgar L. Williams, vice-president; Francis C. Stark, Jr., secretary-treasurer; S. H. Phillips, director (three-year term); Carl H. Smith, director (two-year term); F. Ridgely Todd, director for Farm Bureau; S. H. Rayner, delegate to Farm Bureau; Clay P. Whiteford, delegate to Agricultural Council.

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On the Maryland Calendar-----

On February 22, the Department of Horticulture will present its Canners' and Fieldmen's School. Commencing at 9:30 a.m., the entire day will be devoted to various production problems with the different canning crops. Prior to the war, these schools were an annual affair at the University, but were of necessity abandoned during the war period. Crop research has been proceeding during these years and such results as are final in these investigations will be presented. These will include kinds and methods of application of fertilizers, the behavior of new varieties and strains, effects on yield and quality of delayed harvesting, with corn, tomatoes, lima beans and peas. Sessions will be held in the Administration Building auditorium on the campus. All interested growers are invited.

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The DDT Situation-----

The following is excerpted from an address by F. C. Bishopp, Assistant Chief, Bureau of Entomology and Plant Quarantine, U.S. Department of Agriculture, at the Raw Products Conference of the National Canners' Association in Convention at Atlantic City, February 5, 1946:

"Investigations have shown that DDT is poisonous to warmblooded animals when ingested or absorbed through the skin in considerable quantities in the form of oil solutions. Its acute and subacute toxicity to higher animals is markedly less than that of many materials commonly used as insecticides. DDT has no appre-

ciable sensitizing action, and the use of powders or water dispersible material on the skin is without irritating or other ill effects.

"One of the most characteristic properties of DDT is its stability and persistence. This property which makes it so outstanding as an insect killer also adds to the residue problem. It persists on plants for considerable periods and and is difficult to remove by washing or rubbing. As yet no satisfactory method of removing DDT residues has been devised. Exposure to bright sunlight apparently causes it to lose its toxicity to some extent, and wind and heavy rains appear to remove some of it. There is no evidence as yet that DDT is absorbed by plants or trans-located, either when it is applied to the plants themselves or put into the soil in which they are grown.

"Reports that DDT has been found in potato tubers following the treatment of the plants with DDT insecticides are disquieting. Analyses, by chemists, of potatoes from experimental plots in Maryland, Maine and Washington which were treated with as much as 24 pounds of DDT per acre, failed to reveal any definite evidence of the presence of DDT.

"DDT applied to the soil may cause injury to plants grown therein. Tests carried out by the Bureau of Entomology and Plant Quarantine have shown that many plants are not adversely affected when grown in soils to which has been added 50 to 100 pounds of technical DDT per acre. A few are injured by as little as 25 pounds per acre. These include bush beans, lima beans, rye and squash. Experiments show that a tremendous difference in effect on plants is evident when they are grown in soils of different types after the addition of DDT. Adverse effects on plants are much more evident in sandy soils and those of low fertility. On the heavier and well-manured soils the plants are much less affected by the DDT. Tests carried on in New Jersey, prove that the application of 25 pounds of DDT per acre retains its toxicity to Japanese beetle larvae for at least two years. DDT does not appear to have material germicidal or fungicidal effect, however, it is compatible with many of the common fungicides.

"Among the most disturbing things is the finding that when DDT is fed to animals in considerable quantities it is stored in the fat and also excreted in the milk. For these reasons, the Bureau is withholding recommendations for the use of this material on crops, portions of which are fed to livestock, until more is learned about these toxicological questions.

"The chemical DDT as such is unsuitable for use as an insecticide. It is used against insects in five general forms: (1) As a dust finely ground with a carrier such as pyrophyllite, talc or sulfur; (2) as a solution, dissolved in an organic solvent such as kerosene, fuel oil, or xylene; (3) as an emulsion, dissolved in a solvent with an emulsifying agent added so that it will mix readily with water; (4) as a water dispersible powder, prepared by finely grinding the DDT with a suitable carrier, adding wetting and dispersing agents so that it will remain suspended in water. These water dispersible or wettable materials are being prepared with varying amounts of DDT, usually 25, 50 or even 90 per cent; (5) as solutions in liquefied gas for use as aerosols.

"Each of these types of preparations have uses to which it is well adapted, but for application to plants, dusts and water dispersible powders will probably be most widely used. The dusts are usually employed at strengths of 2 to 10% and the sprays at the rate of 1/4 to 1 pound of DDT to 100 gallons of water. In general the quantity of DDT applied per acre is the crucial point rather than the strength of the material used. Because of the difficulty of properly preparing

dust mixtures, emulsions and water dispersible powders, it would be best to have such materials prepared by manufacturers with adequate facilities and not rely on home mixing.

"DDT is not uniformly effective against all insects and related forms. The Mexican bean beetle, red spider, tomato russet mite, grasshopper and some aphids are so resistant to it as to make its use impractical with the present formulae and method of application. In southern California, control of the tomato fruitworm resulted from the use of 10% DDT dust in sulfur and pyrophyllite, applied three times at the rate of 20 to 40 pounds per acre or a total of about 9 pounds of DDT. In some tests this dust mixture also controlled tomato hornworm, beet armyworm, several species of the climbing cutworm and the tomato insect mite on tomatoes. It appears that sulfur in the mixture controlled the russet mite.

"Against the pea aphid, 5% dust has given results equal if not superior to rotenone dusts in tests in Wisconsin and Idaho. Field tests carried out in cooperation with the University of Maryland involving the application of DDT in liquefied gas aerosols for pea aphid control were very promising. The pea weevil yielded as satisfactorily to 5% DDT dust as to 1.75% rotenone dusts in extensive tests in Idaho. Even with these good results, DDT is not to be recommended for the pea weevil or pea aphid where the pea vines are to be used as stock feed particularly for milk cows unless current investigations show there is no health hazard involved.

"The bean leafhopper which carries "hopper burn" of beans was controlled in some tests with 5% DDT dust. Against the corn earworm on beans 3% DDT dust gave better control than cryolite as generally recommended. DDT applied as a 3% dust at 20 pounds per acre per application has given satisfactory control of the common green cabbage caterpillars.

"DDT or other toxic insecticides should not be applied to leafy vegetables after the leaves, which will be marketed, are formed on the plant."

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The Sage Situation-----

With the cessation of hostilities in Europe, deliveries of European grown sage to American factories have been resumed. A large Eastern spice company advises that they can obtain practically all the sage they need from European sources, at a cost of about twenty cents per pound. Realizing, however, that Maryland growers supplied them in an emergency, they are willing to take all of the stemmed sage grown in this state at the prevailing prices. Foreign grown sage is received in this country without the stems. It is impractical, then, for local factories to stem the domestic sage. A solution has been devised whereby a number of growers operating cooperatively might stem their own sage, using a combine. Proper methods of setting the combine may be obtained from McCormick and Company. Growers desiring to cooperate in the stemming procedure are urged to confer with Dr. E. P. Walls of the University of Maryland before contacting the company.

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The Lima Bean Situation-----

Two new bush lima beans, Fordhook 242 and Early Market, are now well enough established so that seed is generally available to growers. Both were among the All-America selections of superior new vegetables in 1944. Rapid success of

these limas is attributed to improvements in yield, quality and disease resistance.

The Fordhook 242 does well over most of the United States because it sets pods in hot weather much better than the old favorites, including the original Fordhook. It is a good market bean, and in California where it has been grown for freezing, it has been harvested and threshed by machinery.

The Early Market lima is the earliest of the large seeded beans and highly productive. It pleases commercial growers by being ready for market early when prices are high.

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The 1946 Acreage Goals Situation-----

At the 1946 Goals Conference of the Maryland USDA Council in December, tentative goals were worked out for Maryland vegetable crops as follows (figures indicate percentages of 1945 production):

Crops for processing: Tomatoes, 100%; sweet corn, 95%; peas, 100%; snap beans, 75%; lima beans, 125%; cucumbers (pickles), 90%; spinach, 95%.

Crops for market: Asparagus, 100%; lima beans, 120%; snap beans, 75%; cantaloups, 100%; cucumbers, 100%; Irish potatoes, 95% (suggest 10% reduction in early crop, no change in late crop); sweet potatoes, 100%; spring spinach, 95%; fall spinach, 95%; tomatoes, 100%; watermelons, 100%; sweet corn, 100%.

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The Georgia Plant Situation-----

On January 12, a number of seedsmen, canners' fieldmen and research men from the East and Middle West convened at Atlanta, Georgia, to study the problems of the Southern tomato plant industry. Representing Maryland were J. Spence Phelps of Hurlock and Dr. C. H. Mahoney of the University. Problems studied were transportation, refrigeration, packaging, certification, seed, seed treatment, insecticides and fungicides. Committees were appointed to make surveys and reports on all of the above phases. These are to be mimeographed and distributed by the Georgia state pathologist, and when available will be abstracted for your newsletter.

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The Membership Situation-----

There are still a few of our old line members who have not paid their dues for 1946. If a check mark appears here ( ), your dues have not been received. Dues are $1.00 per year. Make checks payable to the Maryland Vegetable Growers' Association, and forward to the secretary, Mr. F. C. Stark, Jr., Horticulture, University of Maryland, College Park, Maryland.

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NEWSLETTER

Issued by
THE MARYLAND VEGETABLE GROWERS' ASSOCIATION

Francis C. Stark, Jr. Secretary-Treasurer

College Park, Maryland March, 1946
Volume XXIII Number 2

Members of the Association will regret to learn that Dr. C. H. Mahoney is leaving the service of the University of Maryland to assume the position of Director of Raw Products Research Bureau with the National Canners' Association. During his eight-year tenure with the University, Dr. Mahoney has devoted much time and energy to the problems of vegetable growers over the state. His assistance and practical solutions to these problems have contributed materially to the advancement of the vegetable industry in Maryland, and his services will be missed by all who have known him. No successor has been named to his position.

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Summarized Results of Soil Fertility Experiments with Tomatoes----

Experiments on soil fertility practices at the Maryland Experiment Station from 1939 to 1945 have led to some very definite conclusions as to practices to be recommended during 1946.

There are five primary factors to consider in any soil fertility program. These are

(1) Organic matter,
(2) Method of fertilizer application,
(3) Rate of fertilizer application,
(4) Fertilizer analysis,
(5) Lime.

With the probable shortage of labor looming up for this growing season, it will be practical to use any procedure possible to reduce the amount of labor involved if that procedure is cheaper and as effective. Labor costs have increased considerably in most sections; contrarywise, the cost of fertilizer is very little more than it was in 1941.

Organic Matter - Organic matter is listed first of the five factors because it is the soil humus which gives life to the soil. Soil humus is one of the most important factors in the control of aeration, water capacity, and granulation of field soils. Humus also makes available to the plants such trace elements as boron, sulfur, molybdenum, iron, aluminum, and manganese, and tends to prevent the soil from fixing added phosphates in a difficultly available state. Organic matter functions mainly as it is decayed and destroy-

ed and its simpler constituents made usable during the growing season. We are confronted with the facts, then, that (1) organic matter must be decomposed and be destroyed to be of value; (2) organic matter must be available for decomposition and destruction in order for the addition of any fertilizer material to be of value. It is then recognizable that for any cropping system to be successful, a rotation must be practiced which will involve turning under large quantities of animal manure or crops for green manure.

Dr. J. B. Hester of the Campbell Soup Company Research Department advises that a ten-ton tomato crop removes from the soil approximately 100 pounds of nitrogen, 35 pounds of available phosphoric acid, 200 pounds of potash, 90 pounds of calcium oxide, and 15 pounds of magnesia. Part of this (roughly half) is returned to the soil when the dead vines are plowed under. Most of the required amounts are utilized during the third month of the plants' growth. Thus, it is easily seen that it is impossible to get heavy yields without heavy applications of fertilizer.

Method of Application - The method of applying fertilizer is equally or more important than the analysis used. As the rate of fertilizer application increases, the analysis becomes less important and the method of application more important. Results at College Park and in demonstrations on the Eastern Shore have shown that the least effective method of application is to broadcast and disc-in the fertilizer. The next least effective method is to mix half in the row and side-dress the remainder. This will give good results in early plantings on light soils with plenty of moisture, but one out of three or four years, when it is fairly dry, the fertilizer ruins the stand. For tomatoes, drilling the fertilizer 4 inches deep is inferior to both plowing under and application behind the plow in the furrow on light soils. Plow-sol applications, however, require special equipment and additional labor, and are not being recommended for 1946 with labor and equipment in such short supply. Band placement 10 inches apart has consistently outyielded all other methods of application on both sandy loam and silt loam soils. Bands 6 inches apart are not as satisfactory as 10-inch bands, because in a dry year 6-inch bands will injure the plants. On heavier soils, band placement is still the best method. On soils of low fertility, we recommend that 60% of the fertilizer be plowed under with 6 to 10 tons of plant material about a month before planting, and 40% be applied in bands at planting time. On a low fertility soil on the Eastern Shore, 750 pounds of 10-10-10 was broadcast on six tons of wheat stover and plowed under, and 750 pounds 4-12-8 was applied in bands at planting time. The effectiveness of the high nitrogen fertilizer with the stover was demonstrated by an increase in yield from 3 tons to 5 1/2 tons. The addition of the 4-12-8 in bands at planting time raised the 5 1/2 tons to 8 1/2 tons per acre.

Starter solutions are not a substitute for band placement, but starter solutions will get the plants off to a good start and their benefits are well known; but they should be used in conjunction with band placement.

Placement of phosphates beneath the row was tried on the Shore and at College Park. On light soils, actual reduction of stand and lower yield resulted when 2-20-0 was used, especially in very dry years. Where stands were not reduced due to ample moisture, no increase in yield was evident. On heavier soils, 2-20-0 below the plants plus band placement of nitrogen and potash at planting time and six weeks later, gave increases over band placement in seasons with ample moisture, but in dry seasons gave no increased yield. This treatment would be especially valuable on soils of high phos-

phate fixation power, but is not recommended for 1946 due to the high labor requirement.

Rates - On heavy soils of fairly high fertility, 1,000 pounds per acre is probably the maximum rate of application for economic returns using present methods of application. Up to 1,000 pounds of complete fertilizer is profitable when properly applied. In general, 500 pounds in bands is equal to 1,000 pounds broadcast and disced-in. On poorer soils where six to ten tons of plant material is turned under, 1,000 pounds of high nitrogen, complete fertilizer such as a 10-10-10 should be used to hasten decomposition, with an additional 750 pounds of complete fertilizer in bands at planting time.

Analysis - In general, a 5-10-10 fertilizer is probably the best all-around tomato fertilizer, with a 10-10-10 and 3-12-6 also being extensively used with satisfactory results.

Lime - Calcium and magnesium are coming into the picture now as fertilizers in addition to their properties as soil amendments. Calcium is used by the plant in cell wall material through which the plant nutrients pass, and also as a cement to hold the cells together. Magnesium is the key element in the chlorophyll molecule - the element which gives chlorophyll its green color. The red blood corpuscles and the chlorophyll molecule are practically identical except that red blood corpuscles contain iron instead of magnesium.

The use of lime as a soil amendment makes it more important that lime be applied to soil to keep the soil pH up near 6.4. In most of the lighter soils, magnesia lime must be used every two or three years with high-calcium lime being used in other seasons. It is impossible to tell accurately which is needed without testing for the amounts of soluble calcium and magnesia, but it is definite that all other forms of fertilizer are wasted in the soil if ample supplies of soluble calcium and magnesia are not available for plant use.

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Summarized Results of Fertilizer Experiments with Peas----

Results of four seasons' work show that larger stands and greater yields of peas can be obtained from the application of fertilizer in a single band 1 1/2 inches to the side of the seed and 1/2 to 1 inch below seed level. The equipment for this method of application is not in production, however, and the farm machinery manufacturers apparently have no immediate plans for making this type of equipment. Next best results were obtained from drilling the fertilizer 3 1/2 to 4 inches deep and then drilling the seed 2 inches deep. Broadcasting the fertilizer and plowing under or discing-in is less effective than drilling. Also inferior is the method of applying fertilizer behind the plow on the plow-sol in one or three bands.

In general, a 2-2-1 is more profitable than a 1-2-1 analysis in a normal year. In a dry year, best results were obtained from drilling 1,000 pounds 5-10-5 four inches deep.

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Issued by THE MARYLAND VEGETABLE GROWERS' ASSOCIATION
Francis C. Stark, Jr., Secretary-Treasurer
College Park, Maryland
Volume XXIII Number 3 April 1946

1946 SWEET POTATO SUPPORT PROGRAM----

The USDA has announced the support program that will be in effect for the 1946 crop of sweet potatoes. The operations outlined and the schedule of prices given are designed to support a price to growers of not less than 90% of parity. The price support announcement provides for purchases from September 1 through November 15. After November 15, 1946 and continuing through January 15, 1947, loans will be available. From January 1 through April 15 settlement will be made on loans.

The program for the 1946 sweet potato crop differs in some major respects from the programs in effect for the past two years. In the first place, purchases will be made only from September 1 through November 15 and at announced prices, while last year purchase prices for this period were not announced in advance. Another major difference is that loans on cured sweet potatoes will be made on ungraded lots provided they contain an average of not less than 50% U.S. No. 1 quality, and are stored in rigid containers in approved storage. Formerly the loan rates were based on a graded and packed for shipment basis. Consequently, the loan rates for the 1946 crop are lower than in previous years. In addition, loans will be made only from November 15 through January 15 and loan settlement will be made from November 15 through December 31 only on those lots showing actual or threatened deterioration necessitating immediate disposal.

Another important change from last season is that the maximum loan and purchase prices will apply only to the Porto Rican, Nancy Hall, Jersey, Golden, Triumph, and other varieties of similar characteristics. Varieties other than these will be supported, but at lower prices.....The minimum grade for which support prices are announced is U.S. No. 1. A specified grade better than U.S. No. 1 will be supported at higher prices. The program announced does not carry any advance announcement for USDA support of grades below U.S. No. 1, nor does it imply support for these lower grades at fixed prices or fixed relationships to the prices for U.S. No. 1. However, if it becomes necessary, in order to carry out the USDA's price support obligation, price levels, terms, and conditions for supporting the lower grades will then be announced.

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CRITICAL ROTENONE SHORTAGE TO CONTINUE UNTIL MID-YEAR----

(Reprinted from AIF News) - Rotenone insecticide shortages during the early part of this season will be worse than during the war.

The situation had appeared to be hopeful. Now, information only recently made available shows that shipments from Peru since fall have dwindled while the docks at Iquitos on the upper Amazon have been piled high with the urgently needed barbasco root - the rotenone source.

The facts were checked at an emergency conference of importers, processors, manufacturers, and government representatives. Comparing notes, it developed that the import shipments - made exclusively by the government since early in the war - have been scanty for several months and arrivals of root here will continue light until late April. Expected heavier arrivals in May and June would be too late to help many United States crops.

The small package trade, retailing to home gardeners is thought to be fairly well supplied.

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NEW METHODS OF WEED CONTROL----

The following is from an abstract of the discussion by Dr. L. W. Kephart of the USDA, given at the Raw Products Conference of the National Canners' Association in convention at Atlantic City on February 6, 1946.

To overcome the excessive cost of weeding young crops by hand, five new methods are under trial: (1) soil treatments, (2) pre-emergence weed killing, (3) selective spraying, (4) flaming, and (5) "brush" weeding.

The most promising soil treatment is steaming with a special machine which lifts a strip of soil, subjects it to super-heated steam and replaces it, all in one operation. Wire worms, insects, and some weed seeds are destroyed. Other methods involve the use of urea, calcium cyanamid, DD and other seed-destroying chemicals. All of these are still in the experimental stages.

Pre-emergence weeding means killing the weed seedlings before the crop seedlings have emerged. It is one of the most promising of the labor saving ideas. The soil is put into final condition for planting then allowed to stand idle for from 2 to 7 days. In that time most of the weed seeds in the upper 3/8 inch of soil germinate and the seedlings are killed by flaming with special blow torches or spraying with selected chemicals. The next day the crop is planted with special machines that do not disturb the soil. This eliminates 90 per cent of the subsequent hand-weeding. Simple weed burners using compressed butane or other gas have shown some advantage over spraying with oils, 2,4-D, di-nitro compounds and other chemicals. The disadvantages of the system are the care needed in laying out the rows, the need of special planters, and the time lost waiting for the weed seeds to germinate.

Selective spraying has had a tremendous increase in the past five years since the discovery in California that young carrots could be sprayed with oil without injury to the crop but with a high mortality to weed seedlings. The crop is sprayed when the carrots are in the 2 to 4 leaf stage with special oils having a high content of "aromatics" but with low flavor and high volatility. Unfortunately none of the important canning crops has been sprayed safely with oils or oil solvents. A more promising selective spray for canning crops is 2,4-D in combination with other chemicals. Thus far corn and asparagus have shown best results with this method.

Flaming with weed burners, after the crop is up, has been widely adopted by cotton growers and holds some promise for corn, possibly beans and perhaps other erect crops. Flaming is a delicate operation requiring a skilled operator but it is highly satisfactory when properly done. The process is patented.

"Brush" weeding is the name applied to a process of brushing the young

row crops with rapidly revolving brushes made of rubber or rubber covered wire. Tests seem quite promising but there are apparently some mechanical difficulties still to be overcome.

For most row crops pre-emergence weeding, either with flame or chemicals, offers at present the most promise of relief from the high cost of hand-weeding.

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PACE BILL----

Following is the partial text of a letter sent March 14, 1946 by Secretary of Agriculture Anderson to Senator James E. Murray, Chairman, Senate Committee on Education and Labor, concerning the proposal to add to the pending Minimum Wage Bill a rider containing provisions of the so-called Pace Bill:

My dear Senator:

You have asked me for the comments of the USDA on the possible effect of adding to the minimum wage bill as a rider the provisions of the so-called Pace Bill, H.R. 754, which provides for including an allowance for all farm labor at wage rates paid to hired farm labor in the calculation of the parity index.

I desire to make my comments in two different categories. First of all, I will give you the general comments of the USDA as to the effect of the Pace Bill in any normal period of farming activity. By that I mean that I would like to consider the Pace Bill completely apart from its implications in the present situation. Then I would like to point out two or three things which are of current importance and which, in my opinion, add greatly to the arguments that might be made against the inclusion of that bill as a rider on the Minimum Wage Bill.....

Assuming that the Pace Bill would not change the calculation of parity in any way except for the inclusion of the wage allowance, its enactment would increase parity prices by about one third. At first glance, such an increase in parity prices might seem attractive from the farmers' standpoint. However, the enactment of the Pace Bill might actually work against the farmers' interest.

(1) Parity prices as now calculated are an accepted standard for farm prices.....Farmers and their representatives should rather carefully consider what they are doing before the current parity index is revised or substantially altered.

(2) The Pace Formula calls for adding an allowance for all farm labor including the unpaid labor of the farm operator and his family at some relative wage rate which must be a matter of judgment rather than statistical record. Parity prices as now calculated are designed to keep the ratio of prices received by farmers to prices and rates paid by farmers at the same level as prevailed in 1910-14. This purchasing power idea has been and will almost certainly continue to be of more value to farmers generally than a shift to some form of the cost of production approach. Prices received and prices and rates paid can be statistically measured but cost calculations for agricultural commodities depend almost entirely upon allowances which must be made for the farmer's own labor and the use of his own land and equipment and in the past at least such estimates have led to endless argument.

(3) Enactment of the Pace Bill would currently result in a substantial increase in parity prices, but it would also give lower parity prices in periods of severe depression than the method now used. That is, farm wage rates go up further and down further than prices paid, interest, and taxes with the result that

parity prices would be higher when the labor situation was tight and lower in cases of depression.

(4) Enactment of the Pace Bill would accentuate the relative disparities which already exist between the several parity prices. That is, the best argument for revising the parity index is for revisions which will bring the parity prices into better line with one another and the existing and prospective demand situation during the several years immediately ahead. A flat percentage increase in all parity prices will not remedy this situation.

(5) The real test ahead for farmers and the farm program is whether support price commitments can be successfully handled once the current food crisis subsides. As an average, farm prices were continuously below the parity level for the 20 years between World War I and World War II and as average prices received by farmers have only been above the parity level for a short time during and following World WarIand World War II. Farmers need a parity price goal which can occasionally be reached, otherwise they will discredit the parity standard and the support price activities which should be connected with it.

(6) In conclusion, farmers and their representatives should be interested not only in the calculation of a theoretical parity but also the manner in which such parity calculations are used. What farmers want is a sound support program which will assure them of reasonable prices over the years ahead rather than an inflationary whirl during the next two years followed by a severe deflation and failure of the support price program. An immediate increase of 33% in parity prices would certainly lead to inflation and an effort to support prices for agricultural products generally at 133% of the current parity level would almost certainly wreck any general price support program as conditions return to normal. Perhaps parity prices should be revised and perhaps an allowance for hired wages should be included in such a revised index since they are actual cash costs, but there is no reason to believe that a 33% jump in parity prices and a shift away from the current purchasing-power concept of parity is to the interest of the farmers, entirely aside from its effects on the non-farm front.....

The USDA is most seriously concerned with the effect of the enactment of the Pace Bill at the present time. There are two principal reasons for this. One is that it is bound to have an upsetting effect on the entire stabilization and price control program, especially as it relates to food. The other is that it might have a very disturbing effect on the present program in which the U.S., along with other exporting countries, is now engaged in an effort to relieve famine, starvation, and probable death among the populations of the world.

Why do I say that it would upset the stabilization and price control program? The three great basic commodities - corn, cotton, and wheat - are currently at about the parity level and the enactment of the Pace Bill would require that ceilings on these commodities be revised upward by about one third since all ceilings under the price control law must be at or above the parity level. But if ceilings on these commodities are revised upward one third, ceilings for almost every other crop and class of livestock would have to be adjusted upward in order to maintain a relative price structure about like the one now current. A new round of wage demands would, of course, be generated and the whole stabilization and price control program wrecked.....

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Issued by THE MARYLAND VEGETABLE GROWERS' ASSOCIATION
Francis C. Stark, Jr., Secretary-Treasurer
College Park, Maryland

Volume XXIII, Number 4 May 1946

About the first of May every year, everyone gets extremely busy with the press of work, and your editor was no exception. My apologies for being a month late with this issue, and we hope that the June issue will be available for mailing toward the end of the month with some valuable information about prepackaging and asparagus, as well as other facts of timely interest.

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NEW DEPARTMENT HEAD APPOINTED-----

Announcement is made of the appointment of Dr. Irvin C. Haut to the position of Head of the Department of Horticulture at the University of Maryland. He succeeds Dr. C. H. Mahoney who accepted the directorship of the Raw Products Research Division of the National Canners' Association.

A native of South Dakota, Dr. Haut majored in Horticulture at the University of Idaho, from which he was graduated in 1928. He continued his horticultural work at Washington State College where he received his Master's degree in 1930. He received his Doctor of Philosophy degree from the University of Maryland, then conducted research work on tomatoes, potatoes, and strawberries at the Oklahoma Experiment Station. Returning to the staff of the University of Maryland in 1936, Dr. Haut has been active in research on tree fruits and small fruits.

Plans for the future include sectional division of the horticultural work to provide greater emphasis on the several lines of work, including truck and processing crops, fruits, and floriculture and ornamental horticulture.

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THE VEGETABLE SITUATION - (As seen on May 9)-----

(From USDA Press Summary) - Demand for fresh vegetables throughout 1946 will be at high levels, held there by the food situation in general, the high level of employment and earnings, and the increased number of people eating out of civilian supplies. During the current quarter of this year, prices received by growers are expected to decline seasonally for truck crops, continue at or slightly above support level for potatoes, remain firm at support levels for dry edible beans and dry smooth peas, and continue to push against the ceiling for sweet potatoes.

Supplies of commercial vegetables for fresh shipment this spring will be about 10 per cent higher than a year earlier, but prices to growers will be only moderately below those of 1945. Past trends suggest that new high records may be set in commercial production for 1946, weather permitting, both for fresh market and for canning and freezing.

The 1945 pack of commercially canned vegetables was only 3 per cent smaller than the record-large 1942 pack. Because of greatly reduced non-civilian requirements, the per capita supply available to civilians this year will be larger than ever before, and about one-fourth larger than was available last year.

Truck crop prices in the first quarter of 1946 were generally above those of the first quarter of 1945, reflecting a winter season production 6 per cent lower than last year, and a level of demand about as strong as in the first three months of 1945. Unusually large exports, large civilian takings, and extensive diversion operations by the Government have brought supplies of potatoes from the large 1945 crop into fairly close balance with demand, leaving no burdensome surplus. Prospective plantings of potatoes in 1946 point to supplies moderately smaller in 1946-47 than in 1945-46, when supplies were third largest on record.

With supplies of 1945 crop sweet potatoes about exhausted, prices are expected to continue at ceilings, as they have since last fall. Average yields on the acreages intended in March would result in a 1946 crop moderately smaller than 1945 and short of probable demand. Stocks of dry edible beans and peas on March 1, 1946, were much smaller than a year earlier. Prices for the small remaining stocks of old beans and peas are expected to continue firm at present levels.

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PARTIAL NICOTINE RELIEF PROMISED-----

(Reprinted from AIF News) - Partial relief is promised by Washington for the critical shortage of nicotine insecticides. The USDA has decided to divert 5,000,000 pounds of burley tobacco for nicotine manufacture, from market and loan stocks. This is enough to make up to 250,000 pounds of nicotine sulfate by the end of July, bringing the total available spring supply up to 80 per cent of the corresponding spring season of last year.

Prices will continue the same, according to manufacturers. They will allocate the still short supply on the basis of local needs, through a cooperative agreement with the Government.

In prewar years, the nicotine manufacturers and dealers had reserve supplies and carryovers ready for emergencies. To hold down cost to the farmer, manufacture was from tobacco stems and wastes. Later the Government bought surplus leaf and made this available to the nicotine processors. This stopped in the last three prewar years, began again in 1942 because of the food production emergency, but still was not enough. Last year, with all nicotine reserve supplies gone, the USDA stopped buying leaf because of cost and because of the leaf shortage. The new decision means resumed buying.

EARLY POTATOES-----

The Production and Marketing Administration reports that last winter the Department of Agriculture recommended a goal of 52 million bushels of early potatoes but the combination of overplanting by growers and good yields now makes a record crop of 70 to 75 million bushels assured. Consumption can absorb, without extra effort, 60 to 65 million bushels. This leaves 10 to 15 million bushels that can be of untold value in filling the gap caused by the world shortage of cereals and many other food items.

The Department's price-support program has been geared to take the low grades of potatoes off the market first in any area where support operations are started. The Department is requiring growers and shippers to agree to withhold culls and low grades from the food market when they are supporting prices.

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ROOTS OF ROTENONE-----

Rotenone was the prodigy child of the prewar insecticide business, as DDT is the postwar wonder. Rotenone is really twins, because it is extracted from the roots of both derris and lonchocarpus. The rivalry between this pair was stopped when derris producing areas were conquered, while its twin throve lustily in South America. The postwar prospect of each is only slightly clouded by the swift rise of DDT.

Only 4,508 pounds of derris, all coming from the Oriental Pacific areas, were imported in 1931. By 1935 imports had reached a million and a third pounds, and increased to more than 6 million pounds in 1940, and about 8 million pounds in 1941.

In these two years, derris and lonchocarpus entered in almost equal quantities, but later, with Japanese conquests in the Orient, only lonchocarpus was available. Peru, principal supplier of lonchocarpus, began a vigorous expansion of production and by 1945 was shipping more roots to the U.S. than had been imported from all sources in 1940 and 1941.

Several Latin American countries have started cultivating derris and the first roots are just coming to market. This and the larger production of lonchocarpus in Peru will face revived competition from Pacific areas when stable conditions are re-established. With restrictions off, the Office of Foreign Agricultural Relations thinks there will be a demand the next few years for more rotenone than has ever been imported - perhaps 10 million pounds, compared with the prewar high of about 8 million. If the price of rotenone is low compared with other insecticides, imports might be several million pounds higher.

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SLIGHT IMPROVEMENT IN FARM LABOR-----

A slight but constantly expanding improvement in the national farm labor situation is reflected in the Department of Agriculture's Extension Service report which shows 314,642 placements were made at 9,000

Extension farm labor offices during the first quarter of 1946. This is a decrease of 132,827 from the 447,469 farm labor placements made at the same offices during the first quarter of 1945.

Meredith C. Wilson, Extension's farm labor chief, pointed out that farmers are having slightly less difficulty in obtaining regular workers, making it less necessary for them to depend on federal recruiting and placement services. Nationally, he said, the farm labor situation is not uniform. Some state reports indicate improvements in some areas, while in others the situation is as tight, or even tighter than during war years. Mr. Wilson notes an increase in the number of workers seeking year-round jobs. Housing continues to be a troublesome bottleneck in placing such workers.

Total number of war veterans and war plant workers who have returned to agriculture little more than offsets the number of 1945 farm workers who are not working on farms this year, Mr. Wilson declared. The farm workers replaced include many aged men and women who are no longer physically able to engage in farm work, youth entering schools and those being taken in selective service, and wartime hired men who have returned to industry or other nonfarm jobs.

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INSECTICIDE AND FUNGICIDE SITUATION (From AIF News)-----

Calcium arsenate - probably reasonably adequate for early crops. Uncertain for Cotton South; will become critical there if heavy infestations develop. Domestic arsenic production practically stopped by strikes.

Copper sulfate - has become tight due to coal strike.

Monohydrated copper - very tight.

Cryolite - adequate.

DDT formulations - coal shortage cutting down production in certain areas. Various producers' reports range from short to extremely critical.

Nicotine - very tight. Industry allocating supplies to most urgent needs, in cooperation with Government.

Organic fungicides - various makes range from adequate to extremely tight.

Rotenone - very heavy shipments were reported leaving Iquitos in May, expected to relieve present "very tight" situation after June.

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Issued by THE MARYLAND VEGETABLE GROWERS' ASSOCIATION
Francis C. Stark, Jr., Secretary-Treasurer
College Park, Maryland

Volume XXIII, Number 5 June-July 1946

THE NITROGEN CENTURY-----

So far, for farmers this two-war century has been a nitrogen century. In 45 years the use of nitrogen fertilizer has increased tenfold - from 62,000 tons to 626,000 tons. According to the Department of Agriculture's Research Administration, scientists - specialists on fertilizers, soils, and crops - have had much to do with making fertilization of the soil a better investment. Since 1910 almost half of the money farmers have spent for fertilizer has been for nitrogen, a large share of which is chemical nitrogen that has become cheaper as the last twenty years brought improved synthetic processes of manufacture into wide use.

Wars are great consumers of nitrogen, both for explosives and for fertilizer to promote food production. World War II brought a doubling of plant capacity for synthetic nitrogen manufacture in the U.S. and Canada. Now, according to the fertilizer specialists, some of these great plants are being converted to fertilizer production in order to assure farmers of the largest nitrogen supply for crops that they have ever had.

Among the various States there are striking differences in the use of nitrogen, says Dr. F. W. Parker, assistant chief of the Bureau of Plant Industry, Soils, and Agricultural Engineering, in charge of soil and fertilizer research. More than half of the fertilizer nitrogen is used in the States along the South Atlantic and Gulf coasts, while many of the great corn and wheat States use little nitrogen and comparatively little commercial fertilizer of any kind.

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FRESH VEGETABLES - "KITCHEN SERVICED"-----
by L. E. Scott, Associate Horticulturist, University of Maryland

A reconversion in the methods of handling and marketing fresh vegetables seems to be in the offing. Growers, shippers, marketing agencies, and the consumer are all interested in the development of "pre-packaged" or "kitchen-serviced" vegetables. That is, vegetables which have been washed, trimmed of all excess inedible portions, packaged in protective containers, transported, and held under ideal conditions until used by the consumer, in order to retain the maximum amount of garden freshness, vitamins, and appetite appeal. In this, as in every new developmeht, there are problems arising which must be answered.

Will the washed and trimmed vegetables, such as husked corn or shelled lima beans, hold up under the necessary interval between grower and consumer?

What type of packaging is most suitable?

What are the optimum storage conditions?

What losses in vitamins and quality will occur?

Research in the Department of Horticulture at the University of Maryland is being conducted in an attempt to answer these and other questions. To date certain information has been obtained on sweet corn, lima beans, asparagus, and peas, while experiments are planned to include other vegetables, including snap beans and spinach.

Sweet Corn: Golden Cross Bantam corn which had been husked and trimmed remained in excellent condition for 13 days when packed in transparent window cartons and held at temperatures of 32 or 35 degrees. No delay should take place between harvest and cold storage, and precooling is essential in prolonging storage life. The sugar loss during the 13 day period was no greater than that occurring in two or three days at ordinary temperatures.

Lima Beans: Clark's Bush lima beans which had been harvested and vined in a commercial viner were held for 11 days in acceptable market condition at temperatures of 28 or 32 degrees. As with sweet corn precolling was a definite aid in prolonging the storage life. Vapor proof containers resulted in off flavor with lima beans, and storage above 32 degrees greatly shortened the storage life.

Asparagus: Preliminary tests have demonstrated the successful use of certain of the transparent film wrappers in the storage of green asparagus. In these tests all of the basal inedible portion of the stalk was removed. The handling and shipping of asparagus in this way should enable a reduction in transportation costs and present to the consumer 100% edible material, instead of the present product of which usually one-third is discarded by the housewife.

Peas: Experiments are now in progress on the possibility of presenting shelled fresh peas on the consumer market. Results to date have not been encouraging. Shelled peas very quickly lose their garden fresh taste appeal, no matter what conditions of storage or packaging are employed. However, test lots which were subjected to a very short hot water blanching period seem to be holding up in storage and retaining to a remarkable degree the quality of freshly harvested peas.

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INCREASE IN WORLD FOOD OUTPUT INDICATED-----

Conditions affecting food production in most areas of the world were substantially better than a year earlier in mid-June as crops throughout much of the northern hemisphere reached their critical period of growth, according to the Department of Agriculture's Office of Foreign Agricultural Relations.

Although there has been some increase in crop acreage, the total world acreage in food crops is still below prewar. Yields are being restricted despite favorable weather by shortage of fertilizer, draft power and other production facilities.

Assuming that present crop producing conditions continue until harvest the world's food output in 1946-47 will be somewhat larger than the relatively low levels of 1945-46, but definitely below prewar, particularly on a per capita basis. In addition, pre-harvest food stocks are at low level. Consequently, total supplies of available food products during 1946-47 will not be much larger than a year earlier, and careful use of all food products must continue to avoid a critical world food shortage prior to the 1947 harvest.

Further ration cuts have been necessary in some areas during the past month, and health conditions in several areas have declined because of ration reductions in the winter and spring.

The OFAR report is the second in a series of surveys reviewing the world food situation prepared at the request of the President's Famine Emergency Committee. Its conclusions are drawn from a world wide series of reports from Foreign Service officers in which particular attention is given to current food supplies, prospective acreage, weather and other factors affecting yields of food crops.

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FOR YOUR INFORMATION-----

We are advised that the Atlas Waste Paper Company has for sale 40,000 collapsible, wire bound, wood crates with lids. Inside dimensions 11" deep, 11" wide, and 14" long. Made of 3/16" stock, they weigh slightly less than seven pounds each. Minimum shipment would be 3,000 crates. They are in good second-hand condition. The crates were used for shipping whiskey during the war and they bear some advertising.

Sample crates will be sent promptly to anyone who might be interested, upon application to the Atlas Waste Paper Company, 800 Sarah Street, Pittsburgh 3, Pennsylvania.

The above information is presented by the selling agency, and is not to be construed as an endorsement by the officers of the Vegetable Growers' Association, inasmuch as the Association does not endorse any product.

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THE INSECTICIDE AND FUNGICIDE SITUATION-----

Whether there will be enough agricultural insecticides and fungicides to get by depends more and more on the degree of infestations.

Hampered by strikes at raw material sources and set back at critical times by the coal and railroad strikes, the industry sees only a bare chance to meet the urgent needs of agriculture. Substitutions are still necessary. In many lines severe infestations could make the available supplies critically inadequate.

Substantial raises by OPA of copper and lead price ceilings, without corresponding adjustments of finished insecticides and fungicides, have forced some lead arsenate and copper fungicide producers temporarily to suspend production. Meanwhile 900 tons of finished copper fungicides are tied up by one picket line.

Nicotine continues tight and is distributed with USDA advice as emergencies develop. Rotenone root arrivals expected from South America in June have been further delayed, but heavy arrivals are expected about July 1 and by mid-July the raw material situation should be improved. There will be further delay before finished rotenone products are available. Producers report the backlog of unfilled sulfur orders is being reduced. DDT production is far behind demand. Shortages of such essentials as containers and spray lime continue to be critical.

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The AUGUST, 1946 Edition. Vol. XXIII. No. 6.

NEWSLETTER

For the Maryland Vegetable Growers' Association.

A. Lee Towson, President,
Edgar L. Williams, Vice-President,
F. C. Stark, Jr., Sec-Treas.

C. C. Phillips, Director,
C. H. Smith, Director,
S. H. Phillips, Director.

LATE BLIGHT OF TOMATOES-----

The first serious outbreak of late blight (Phytopthera infestans) on tomatoes in Maryland in over twenty-five years has occurred this year. Valiant efforts to save the tomato crop in many places have been disappointing. This year the weather has been against us. Heavy rains in May followed by humid temperate conditions in June gave the disease the proper growing conditions. Because of the normally relative unimportance of the disease, little extensive objective research has been made up to this time. However, certain things have been determined. The causal organism is the same which causes late blight of potatoes, but appears to be a different strain. The strain which causes severe losses on potatoes infects tomatoes only in a very mild way at first. But having infected tomatoes, transmission is rapid with suitable weather conditions, and over a period of several transmissions the organism builds up virulence to the point where it can attack tomatoes with very serious effect.

Pathologists tell us that the fungus spores (fruiting bodies) must have water in which to germinate, and that it takes only three hours for germination to take place. Thereafter, infection shows up in twenty-four to forty-eight hours. Thus, if a drop of dew forms on a leaf or fruit in early morning and remains there for three hours or more, and that drop of dew contains a viable late blight spore, that leaf or fruit will show visible signs of infection within two days hence. After the spore germinates, the fungus grows into the inside of the leaf or fruit and there continues to grow, unmolested by the application of sprays or dusts.

Normally, infected leaves will first be observed at the base of the plants and underneath the plants where, due to poor air circulation and high humidity, conditions are more favorable for growth and development of the fungus.

It should be borne in mind that any control measure used is at best only a prevention and not a cure. The spores are very susceptible to dessication and are killed when the temperature exceeds 80 degrees F. and the humidity is low. Temperatures of 40 to 60 degrees F. and humid conditions are especially favorable for the germination of the spore and temperatures of 70 to 80 degrees F. are favorable to the growth of the fungus in the leaf and fruit cells. It is easily seen then that cool, moist nights, followed by temperature to warm days such as we have had in Maryland this year are conducive to the spread of the disease. In order to prevent this spread it is necessary to maintain coverage of the plants with fungicides. Recommended dusts include any insoluble copper with a talc diluent containing 6% to 8% copper as metallic. Recommended sprays include any insoluble copper compound or Dithane-Zinc-Sulfate-Lime. On older plants only a 4-2-50 Bordeaux mixture will give satisfactory control. Bordeaux should not be used on young plants because the lime contained in it may stunt the growth of the plants.

The primary factors which will measure the success of any control program are: (1) complete coverage of the plants, (2) coverage soon enough, and (3) coverage often enough. From observations made during the current season, it appears that method of fungicide application plays an important part in the control program and that the methods of application in order of their desirability are: (1) orchard sprayer with a boom attachment, (2) orchard sprayer with a gun, (3) bean duster with an apron, (4) airplane duster, and (5) airplane sprayer. The last two methods have been very disappointing from the standpoint of uniform coverage.

Little is known about the overwintering of the tomato strain of late blight in Maryland. It is known that this strain will overwinter on potato tubers. It probably does not overwinter on tomato refuse or in the soil, and does not overwinter in the seed. However, it is recommended that a rotation be practiced so that tomatoes will not follow potatoes or tomatoes, and that tomatoes will not be grown in fields on which tomato refuse has been dumped.

IRRIGATION CAN PAY——

While the percentage of water in plant tissues will vary with different kinds of plants, generally speaking, it may be said that water constitutes about 90% of plants. It may require several hundred pounds of water to be taken up by the roots, with the resultant loss by transpiration through the leaves, to make one pound of plant tissue. Plant nutrients, supplied from the soil through the roots, are taken up in solution in the soil water. Water thus becomes the vehicle by which nutrients enter the plant, as well as forming the principal component of the plant body.

Investigators tell us that for normal growth of vegetable crops, we should have one inch of rainfall every week, or ten days, during the growing season. This means about 27,000 gallons per acre, and if this is converted to pounds we find it totals 113 tons. In may areas, the annual rainfall is sufficient to supply this quantity of water, but it is not evenly distributed, and even in humid regions, such as Maryland, there seems to be an increasing number of periods of long or short duration, of dry weather at critical times in the development of a crop. There is nothing new in these statements. These facts have been known for years. They are presented as a reminder that water is often the limiting factor in crop production and to perhaps give us a better realization of its value.

What can be done to insure the necessary water supply when it is most needed? By taking advantage of every opportunity to increase the organic matter in the soil, its water-holding capacity may be materially increased. Stable manure, barnyard manure, crop residues turned under, green manure crops, and catch crops all help to build up this organic supply. Nearly every farm rotation could have crowded into it somewhere more crops to be turned under than is being practiced. Careful thought and planning toward this end will bring out many opportunities for adding organic matter to the soil. And when this is done, the results will be surprising.

Weeds are undesirable citizens in any field. Some experimental work in several states has shown that the principal benefit from cultivation is getting rid of weed competition. But in doing this, let us be careful not to harm the crop we are growing by cutting off the roots. Many vegetable crops develop a very elaborate root system which almost completely fills the upper soil levels nearly to the surface, as the crop grows older. No one has ever improved the growing conditions of a field crop by cutting off the roots. Weed seedlings are very easily destroyed when only an inch or so high. If the seed bed has been properly

prepared before planting, shallow and timely cultivation through the crop life is all that is necessary. In addition to weed control, proper cultivation at the right time, on some soils, has the effect of conserving soil moisture and preventing run-off during a rain.

These practices of adding organic matter and making proper and timely cultivation are followed by many Maryland growers. Even then, there are dry periods at times when the crop needs a great deal of water, and the supply is not adequate. This brings us up to the subject of supplemental irrigation. Experiments have shown decided increases in yield of many vegetable crops under irrigation. As far back as 1921 experimental work in Michigan gave the following increases in yield with several crops, for instance: cabbage, 81%; onions, 233%; beets, 86%; carrots, 66%; lettuce, 60%. The quality in most crops is also improved, more intensive cropping is possible, and maturity is hastened.

More recent results in Alabama (1945), indicate an interrelationship between supplemental irrigation, commercial fertilizer, application of manure and green manure crops. The results illustrate that the effect of these factors on yield of sweet corn was accumulative. When all factors were supplied the production of marketable green corn was almost seven tons per acre. Irrigation was a very important factor in that production.

In the state of Washington in 1940, irrigation, coupled with fertilizers, resulted in the following increased per acre returns: strawberries, $59.00; beans, $41.00; potatoes, $39.00; beets, $38.00; and peas, $24.00. Such increases mean real profits and soon pay for irrigation installations.

A 1941 bulletin from Minnesota summarizes the situation as follows:

"Supplemental irrigation insured germination, prevents crop failure from drouth, results in increased yields, and protects against unseasonable frosts.

"Initial costs of spray irrigation vary, according to type, from $30.00 to $250.00 per acre. Maintenance and operating costs are comparatively low.

"Experience has shown that supplemental irrigation usually pays the original cost of the system within from one to three years.

"Ample available water supply is of first importance.

"Lakes, streams, and wells are the best sources of supply.

"Pumping is costly; hence, total lift should be kept as small as possible and deep wells used with great discretion.

"Type of soil and topography largely determine the type of distribution system to use. Overhead spray irrigation systems usually give the best satisfaction in Minnesota because the water is most uniformly distributed by them without preparing the land surface. Oscillating spray systems are well suited to small areas under intensive cultivation with high-return fruit and vegetable crops. Rotary spray systems are better suited to the larger areas and to all crops not injured by a strong spray.

"A one-inch application per week is the least you should use.

"Points that must be carefully considered in design are: Size of pipe, capacity of pump, and size of power unit.

"Expert counsel should be sought in working out the design."

There are a number of supplementary irrigation systems in use on Maryland farms at this time, and the experience of these growers indicates information closely paralleling that advanced by the Minnesota Station. You would do well to consider the benefits of supplemental irrigation.

THE VEGETABLE SITUATION----- AS OF AUGUST 5, 1946.

Farmers have produced record or near-record quantities of fresh vegetables and potatoes which are moving to market this summer at prices substantially lower than those of last summer. Current stocks of commercially-canned vegetables are low, but record supplies will be available from the new pack. About an average quantity of sweet potatoes will be marketed this summer at prices somewhat higher than last year. Prospective crops of dry edible beans and peas are each about one-eighth larger than last year, but only peas will be available for export in quantity...

A record-large supply of truck crops for fresh market shipment this summer is indicated, with individual crop records set for cantaloups, Honey Dew melons, watermelons, tomatoes, cucumbers, lettuce, and spinach. Current prices received by farmers for most truck crops for fresh market shipment are well below prices a year earlier, and are expected to decline seasonally until fall.

Acreage planted this year to commercial truck crops for canning and freezing exceeds two million acres for the fifth consecutive year, and a new record-large production could result if good growing weather continues. Production for processing is estimated to be a new record high for green peas but slightly smaller than last year for snap beans. Planted acreages of other truck crops grown for processing are at record or near-record levels for lima beans, cucumbers for pickles, sweet corn, and tomatoes.

Demand for canned vegetables continues strong...For the third time in four years, the U. S. is producing a potato crop of more than 400 million bushel...A near-average crop of 65.3 million bushels of sweet potatoes are indicated for 1946... (From U.S.D.A. Press Summary).

The OCTOBER, 1946 Edition Vol. XXIII, No. 7

NEWSLETTER

For the Maryland Vegetable Growers' Association

A. Lee Towson, President
Edgar L. Williams, Vice-President
Francis C. Stark, Jr., Sec.-Treas.
C. C. Phillips, Director
C. H. Smith, Director
S. H. Phillips, Director

ANNUAL MEETINGS COMING UP-----

The annual meetings of the Maryland Vegetable Growers' Association will be held at the Lord Baltimore Hotel in Baltimore on January 8, 1947. This will be in conjunction with the annual meetings of the Maryland Farm Bureau. If any of you have any particular problems you would like to have discussed, please advise the Secretary. A lively session is planned, with discussions on both the production and marketing phases.

The Potato Show will again be held in conjunction with the annual meetings. The premium list for the 1947 Show is enclosed. Entry regulations are self-explanatory.

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HEAD OF STATE DEPARTMENT OF MARKETS ANNOUNCED-----

The appointment of Dr. H. L. Stier as Head of the State Department of Markets was made in September. A native of Howard County, Dr. Stier is well acquainted with the cultural and marketing problems of farmers, but particularly so of truck growers. He is a graduate of the University of Maryland, having earned his Ph. D. degree at the institution in 1939 working with vegetable crops, after which he was an Assistant Professor of Horticulture. Entering the Army in 1941, Dr. Stier rapidly advanced to the rank of Lt. Colonel and became chief of the statistics branch in the office of the Quartermaster General. In January of this year, he transferred to the War Assets Administration, where he served as assistant to the administrator and director of the progress and analysis division.

Since his appointment the first of September, Dr. Stier has met with a number of groups of key personnel of the State to discuss and plan the marketing program which he is developing. At a meeting with fruit and vegetable growers in Baltimore on October 11, he presented a 20-point program involving marketing of fruits and vegetables. Dr. T. B. Symons, Director of the Extension Service, is giving this program every possible support. He recently stated that he believed that the distribution and marketing of agricultural products demands greater emphasis than any other phase of agriculture. The principal aim of the program is to develop a strong coordinated approach to marketing, involving both research and service in cooperation with the various farm and commodity groups.

Since the passage of the Flannagan-Hope Bill, State and Federal agencies throughout the country are rapidly developing their plans to take advantage of this progressive legislation. The vegetable growers of the

"Expert counsel should be sought in working out the design."

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Since the passage of the Flannagan-Hope Bill, State and Federal agencies throughout the country are rapidly developing their plans to take advantage of this progressive legislation. The vegetable growers of the

State should get solidly behind the Maryland program that has been developed so that Maryland can obtain its rightful position in the field of marketing research and service. Maryland's geographical and agricultural position makes it important that we have a strongly supported and useful program that will be of real value to the producers of the State in the years to come. Many authorities believe that an important era in agriculture will develop in the next ten years in which marketing will play an extremely important part. The budget for the marketing work has just been submitted. It is important that the State appropriate sufficient funds to match the Federal funds which will be available to the State under the provisions of the Flannagan-Hope Act. Unless the Federal money is matched, it will not become available for use by the states.

Comments and suggestions from the producers and others in the state interested in the production and marketing of vegetables and fruits are desired by the new Marketing Head. He would appreciate any suggestions concerning problems or phases of work which you believe should be undertaken. His office address: Department of Markets, University of Maryland, College Park, Maryland.

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PREVENT POTATO SPROUTING IN STORAGE-----

A new chemical, the methyl ester of alpha napthaleneacetic acid, has been found to retard the sprouting of certain root crops and potatoes in storage. This discovery was made by Dr. Ora Smith at Cornell University, and the results have been truly outstanding. Results of storage experiments in connection with the culinary quality of potatoes show that best cooking quality results when potatoes are stored above 40 degrees F. Sprouting is inhibited at temperatures of 40 degrees, but when stored at higher temperatures the potatoes sprout quite rapidly. The dilemma, then, has been how to prevent sprouting of the tubers and still have best culinary quality. Others have been confronted with the necessity of having to maintain expensive cooling equipment for the storage of the potatoes.

The chemical may be applied in any of several forms such as shredded paper which has been soaked in the chemical, inert dusts such as talc with which the chemical has been mixed, or sprayed on the potatoes as they are placed in the bin. The material has been found to work very well on carrots, turnips, beets, and rutabagas in addition to potatoes.

The material is offered for sale by the following companies, under the accompanying names:

Dow Chemical Company, Midland, Mich. - "Dow Sprout Inhibitor"
G.L.F., Terrace Hill, Ithaca, N. Y. - "Dorm-Aid"
American Cyanamid & Chemical Corp., 30 Rockefeller Plaza, New York 20, N. Y. - "Hormone Dust N-10-A"

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THE FLANNAGAN-HOPE BILL-----

The Flannagan-Hope Bill, signed by the President in mid August, provides for a greatly expanded agricultural research and marketing program. Although the Bill authorizes greatly expanded research, it emphasizes

research and service in the marketing, transportation, and distribution of marketing commodities.

The principal objective of this legislation as stated in the Act is to "provide for further research in the basic laws and principles relating to agriculture and to improve and facilitate marketing and distribution of agricultural products."

Although no funds have yet been appropriated, the Bill authorizes an appropriation of nine and one-half million dollars for the 1947 fiscal year and progressively larger amounts in each of the five following years. It is estimated that Maryland will receive during the next five years upwards of eight hundred thousand dollars as its share of the appropriation authorized by this Bill.

The Act is divided into two principal parts. Title I is essentially an amendment to the Bankhead-Jones Act of 1935. It provides for payment to the states for additional basic agricultural research on all types of farm problems. In addition to the funds authorized in Title I which are solely for marketing work, at least 20 per cent of the funds under Title I are specifically earmarked for research in the marketing of agricultural products.

Title II is known as the Agricultural Marketing Act of 1946.

The establishment of a National Advisory Committee of eleven men, six of whom are to be producer representatives are provided for in Title III of the Act. This committee, to be named by the Secretary of Agriculture, will make recommendations concerning the research and service work and assist in obtaining the effective cooperation of Federal and State agencies. The committee will meet at least once each quarter.

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MARYLAND VEGETABLE GROWERS' ASSOCIATION

NEWSLETTER

November-December, 1946, Vol. XXIII, No. 8-9
(missing issues)